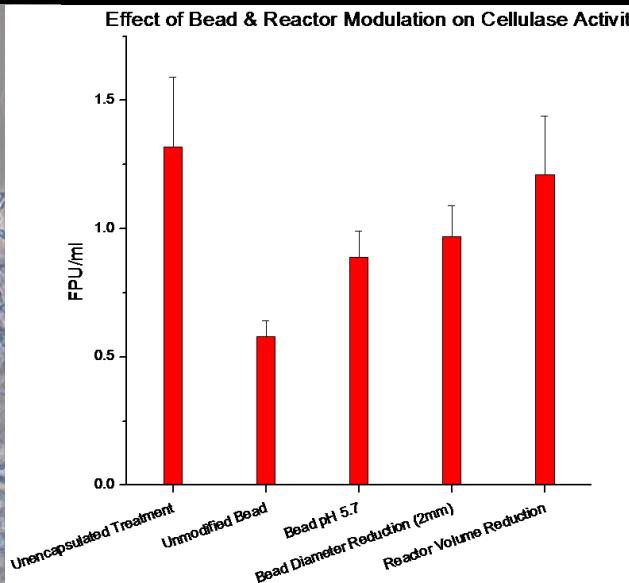


Bio-Energy Research  
at  
Boise State University

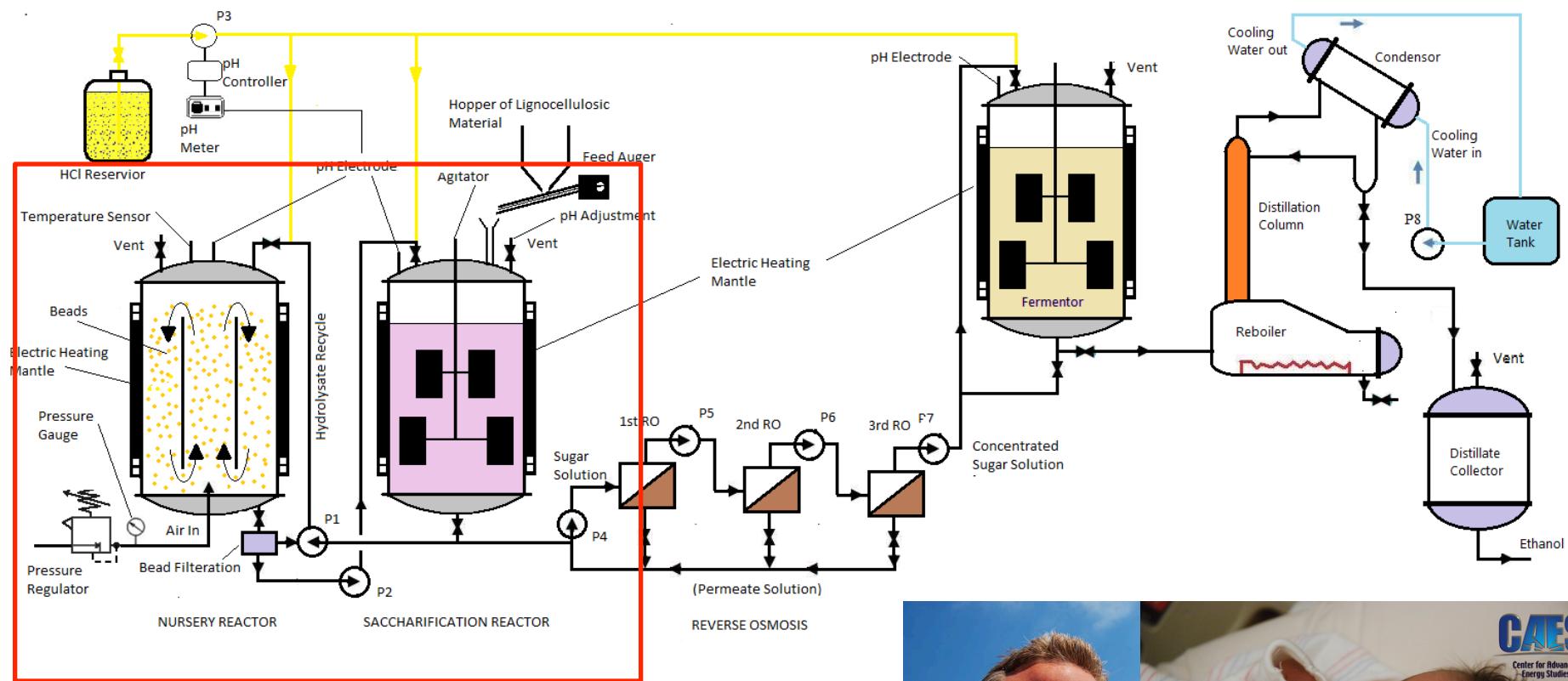
# BioFuels: Lignocellulose Hydrolysis



- Funding: CAES Collaborative Research PI: Greg Bala, Co-PIs: Kevin Feris (BSU), Jon VanGerpen (UI), Tim Magnusen (ISU), \$450,000 (Proposal # 09-056)
- People: Brian Deis, M.S. Student and NSF GK-12 Fellow (BSU).



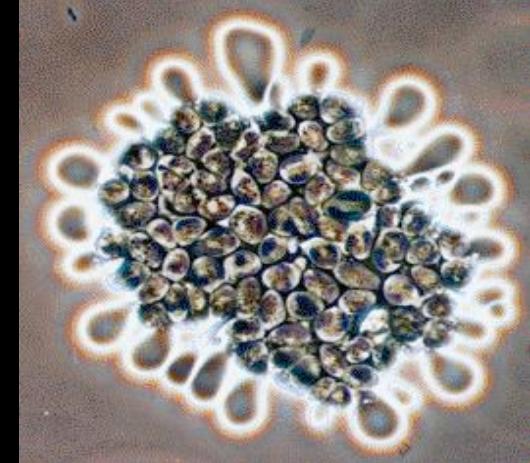
# Biocatalyst Optimization for Continuous Flow Nursery and Saccharification Reactor



**CAES**  
Center for Advanced Energy Studies

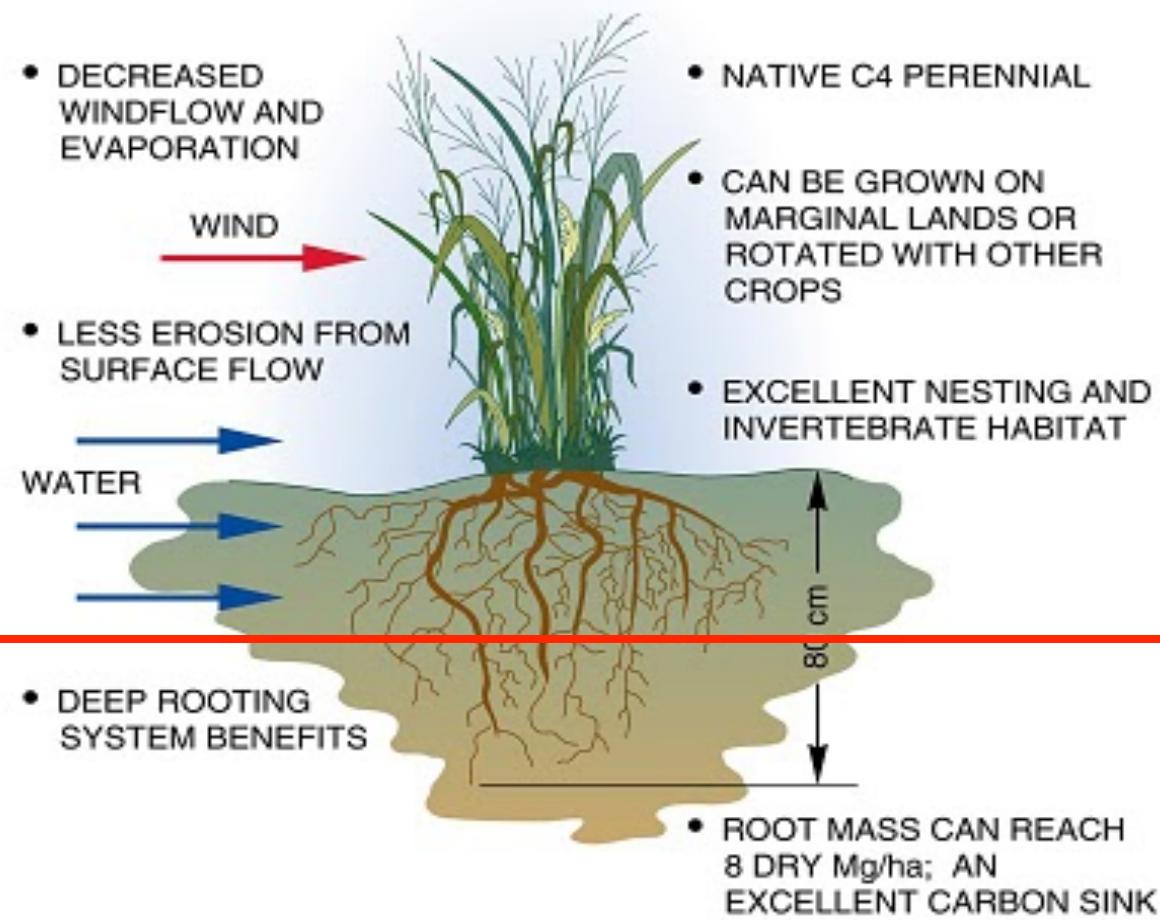
# Biofuels: Algal lipid production

- Employing Anaerobic Digestion (AD) to produce natural gas and other products from animal waste (UI, CAES)
- AD effluent is high in N and P
- Efficient nutrient removal by algal cultures
- *B. braunii* produce long chain hydrocarbon lipids that can be refined to transportation fuel (Feris lab, CAES, UI)



# De Graaf Lab BSU: Switchgrass - root impacts on carbon cycling

## SWITCHGRASS



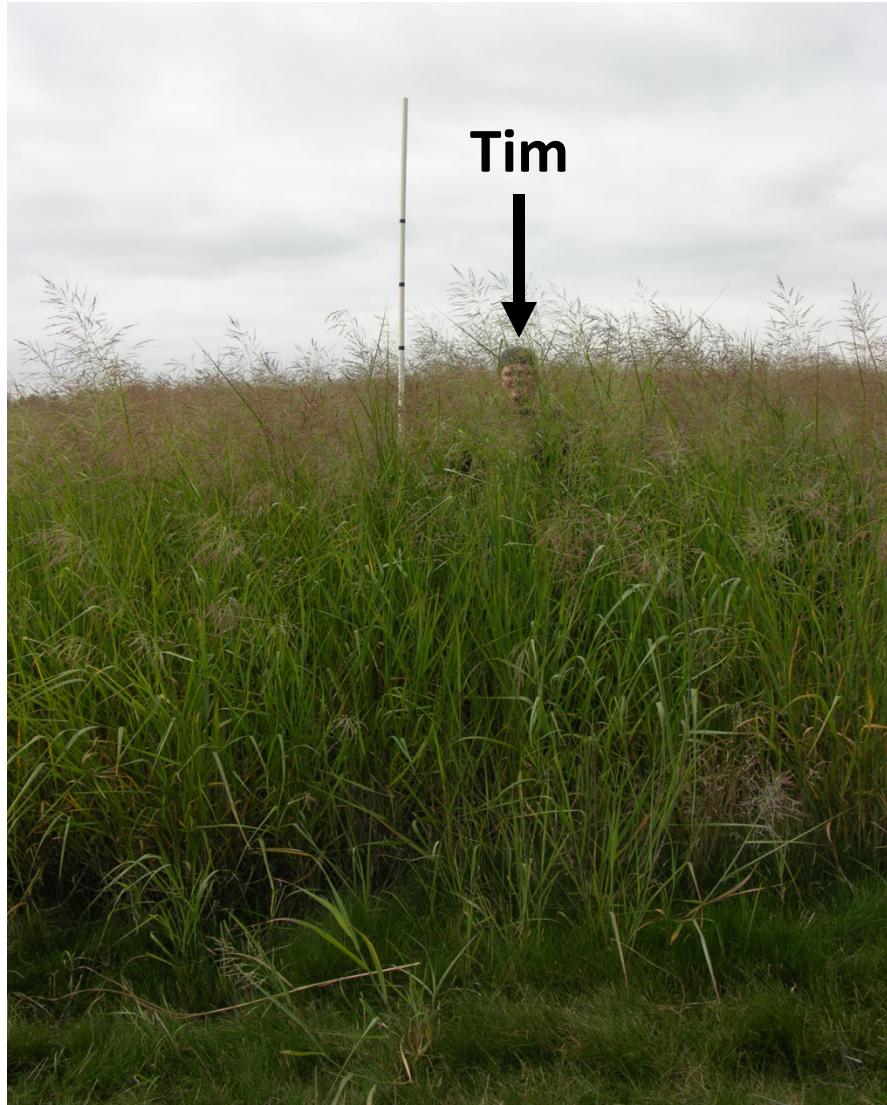
## Questions

How do different root systems affect the impact of root exudates on decomposition of more stable SOM pools (*i.e.* priming) and microbial function?

*or*

Can we predict differences in microbial processing of soil C based on the relative abundances of fine and coarse roots in Switchgrass cultivars?

# Switchgrass cultivars differ aboveground



....and belowground



Kanlow



Sunburst

